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CLAIMS

The following listing of claims replaces all prior versions or listings of claims pending in the application:

- 5 1. (currently amended) An optical module package comprising:
a housing;
a plurality of optical fiber connectors; and
a plurality of optical fiber cables, each of the optical fiber cables connecting the
housing and a corresponding optical fiber connector, said each of the optical
10 fiber cables comprising
an optical fiber rigidly connected to the housing and to the corresponding
optical fiber connector,
a flexible inner protective tube enclosing the optical fiber, and
a flexible outer protective tube enclosing the inner protective tube, wherein the
15 inner protective tube and the outer protective tube are longitudinally
movable relative to the optical fiber along at least a part of the optical
fiber enclosed by the inner protective tube and the outer protective tube
in response to environmental temperature changes, to reduce a strain on
the optical fiber caused by thermal expansion or contraction of the inner
20 protective tube and the outer protective tube.
2. (original) The optical module package of claim 1, wherein the inner protective tube
comprises at least two distinct segments separated by a longitudinal gap.
- 25 3. (original) The optical module package of claim 1, wherein the inner protective tube
comprises an inner tube region situated within the housing and longitudinally
movable relative to the housing.
- 30 4. (original) The optical module package of claim 3, wherein a region of the inner
protective tube proximal to the corresponding optical fiber connector is rigidly
connected to the corresponding optical fiber connector.

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- 5 5. (original) The optical module package of claim 3, wherein the outer protective tube comprises an outer tube region situated within the housing and longitudinally movable relative to the housing.

6. (original) The optical module package of claim 3, wherein a region of the outer protective tube proximal to the corresponding optical fiber connector is longitudinally movable relative to the corresponding optical fiber connector.

- 10 7. (original) The optical module package of claim 1, wherin a region of the inner protective tube proximal to the corresponding optical fiber connector is longitudinally movable relative to the corresponding optical fiber connector.

- 15 8. (original) The optical module package of claim 7, wherein the inner protective tube comprises an inner tube region situated within the housing and rigidly connected to the housing.

- 20 9. (original) The optical module package of claim 7, wherein the outer protective tube comprises an outer tubc region situated within the housing and longitudinally movable relative to the housing.

10. (original) The optical module package of claim 7, wherein a region of the outer protective tube proximal to the corresponding optical fiber connector is longitudinally movable relative to the corresponding optical fiber connector.

- 25 11. (original) The optical module package of claim 1, wherein the outer protective tube comprises a outer tube region situated within the housing and longitudinally movable relative to the housing.

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12. (original) The optical module package of claim 1, wherein a region of the outer protective tube proximal to the corresponding optical fiber connector is longitudinally movable relative to the corresponding optical fiber connector.
- 5 13. (original) The optical module package of claim 1, further comprising a longitudinal guide disposed over the outer protective tube, for constraining the outer protective tube solely to a longitudinal motion within the housing.
- 10 14. (original) The optical module package of claim 1, wherein said each of the optical fiber cables comprises a flexible sliding medium disposed between the inner protective tube and the outer protective tube.
15. (original) The optical module package of claim 14, wherein the sliding medium comprises aramid fibers.
- 15 16. (original) The optical module package of claim 14, wherein the sliding medium is affixed to the housing and to the corresponding optical fiber connector.
- 20 17. (original) The optical module package of claim 1, further comprising a fused fiber coupler situated within the housing and rigidly connected to the optical fiber.
- 25 18. (original) The optical module package of claim 1, further comprising an optical component situated within the housing and optically coupled to the optical fiber, the optical component being selected from a group consisting of splitters, isolators, circulators, attenuators, switches, and wavelength multiplexing and demultiplexing components.
19. (currently amended) An optical system comprising:
an optical source;
30 an optical receiver; and

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an optical module package optically connecting the optical source to the optical receiver, the optical module package comprising
a housing;
a plurality of optical fiber connectors including a first connector connected to
5 the optical source, and a second connector connected to the optical receiver; and
a plurality of optical fiber cables, each of the optical fiber cables connecting the
housing and a corresponding optical fiber connector, said each of the
optical fiber cables comprising
10 an optical fiber rigidly connected to the housing and to the
corresponding optical fiber connector,
a flexible inner protective tube enclosing the optical fiber, and
a flexible outer protective tube enclosing the inner protective tube,
wherein the inner protective tube and the outer protective tube
15 are longitudinally movable relative to the optical fiber along at
least a part of the optical fiber enclosed by the inner protective
tube and the outer protective tube in response to environmental
temperature changes, to reduce a strain on the optical fiber
caused by thermal expansion or contraction of the inner
20 protective tube and the outer protective tube.

20-22. (canceled).

23. (new) The optical module package of claim 1, wherein each of the inner protective
25 tube and the outer protective tube has a length on the order of meters.
24. (new) The optical module package of claim 1, wherein each of the inner protective
tube and the outer protective tube is longer than or equal in length to 3 m.
- 30 25. (new) An optical method comprising:

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establishing an optical communication between a pair of optical fiber connectors of an optical module package, wherein the optical module package comprises a housing;

the pair of optical fiber connectors; and

5 a pair of optical fiber cables, each of the optical fiber cables connecting the housing and a corresponding optical fiber connector, said each of the optical fiber cables comprising an optical fiber rigidly connected to the housing and to the corresponding optical fiber connector,

10 a flexible inner protective tube enclosing the optical fiber, and

a flexible outer protective tube enclosing the inner protective tube;

wherein each of the inner protective tube and the outer protective tube has at least one of an internal gap and a free end providing strain relief in response to environmental temperature changes; and

15 optically operating the optical module package in a temperature range spanning at least 100 °C.

26. (new) An optical module package comprising:

a housing;

20 a plurality of optical fiber connectors; and

a plurality of optical fiber cables, each of the optical fiber cables comprising

an optical fiber rigidly connected to the housing and to a corresponding optical fiber connector,

25 an inner protective tube enclosing the optical fiber substantially between the housing and the corresponding optical fiber connector, and

an outer protective tube enclosing the inner protective tube substantially between the housing and the corresponding optical fiber connector;

wherein each of the inner protective tube and the outer protective tube includes at least one of an internal gap and a free end disposed between the housing and the corresponding optical fiber connector.